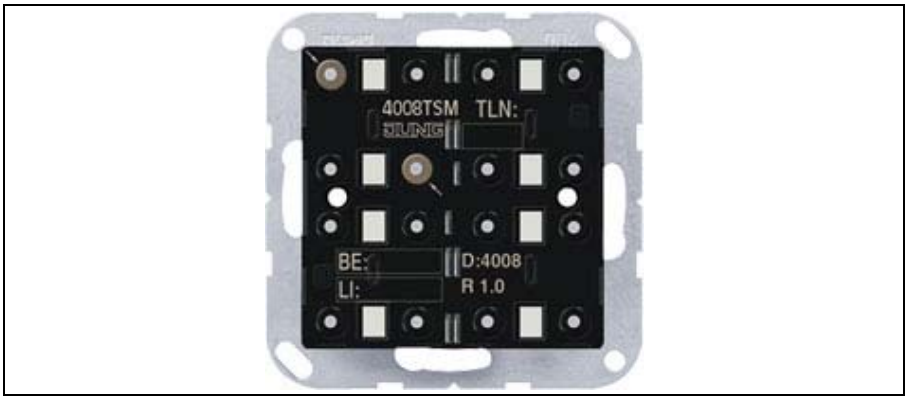
Operating instructions
Push-button module



1. Safety instructions

Electrical devices may only be installed and fitted by electrically skilled persons.
Non-compliance with the instructions could cause damage to the device, fire or other hazards.
Connect the push-button module exclusively to the universal relay- or dimming station (no mains potential!).
These instructions are a component part of the product and must remain with the end customer.

2. Function

2.1. Intended purpose

- Push-button module for connetion to relay/dimming station.
- Installation in appliance box according to DIN 49073

2.2. Product characteristics

- 8 channels of the relay station can be controlled: switching, push-button control, blind/shutter
- 16 channels for relay station connected in parallel in conjunction with the push-button extension module
- 4 channels of the dimming station can be controlled
- 8 channels for relay station connected in parallel in conjunction with the push-button extension module
- All channels of the relay station are in switching mode in the state as delivered.
- Central function: all selected channels of the relay station are controlled centrally.
- Can be configured with 1-gang, 2-gang, 3-gang or 4-gang cover kit
- Programming without additional aids.

- Free assignment of the groups to the channels.
- Red LED as status indicator (can be switched off).
- Blue orientation light (can be switched off).
- Feedback of switching states on all connected push-button modules and modules.
- Up to 4 push-button modules with up to 4 push-button extension modules can be connected to a single relay station (can be used for example in two-way or intermediate circuits).
- Cloning of push-button modules: transmitting the button assignment of a module to other modules. Can be used for example in two-way or intermediate circuits (push-button modules with extension module can be cloned)
- Easy installation using 2-wire cable
- Covers can be labelled using laser labelling tool on the Internet

3. Operation

Each button can be operated over its entire surface or top/bottom, depending on the programming. The function depends on the setting of the stations.

Relay station:

- Switching / push-button control: press button briefly.
- Move blind/shutter: long press on button.
- Stop blind/shutter or adjust slats: press button briefly.

Dimming station:

- Switching: press button briefly.
- Dimming: long press on button.

Information for electrically skilled persons

4. Installation and electrical connection

DANGER!
Electric shock from touching live parts in the installation environment.
An electric shock can be fatal.
Before working on the device, disconnect the power and cover live parts in the area.

Snapping on the adapter frame

An adapter frame is required depending on the design range

LS ranges and Flat Design

The adapter frame LS4AR is pre-assembled.

AS 500 and A ranges

The adapter frame LS4AR is not required.
Dismount the adapter frame by means of pressing at the edge of the frame.

CD 500

The adapter frame LS4AR is not required.
Dismount the adapter frame by means of pressing at the edge of the frame.
Assemble the adapter frame CD4AR. Snap adapter frame CD4AR in the right orientation from the front onto the module (4) (Figure 2).Observe the label “TOP”.

Connection

Caution!
Connect the push-button module exclusively to the universal relay/dimming station.

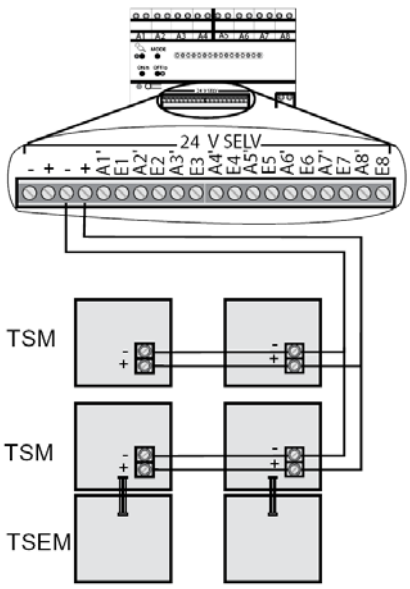


Fig. 1: Connection of push-button module (TSM) and push-button extension module (TSEM) to the universal relay station

Installing and connecting the device

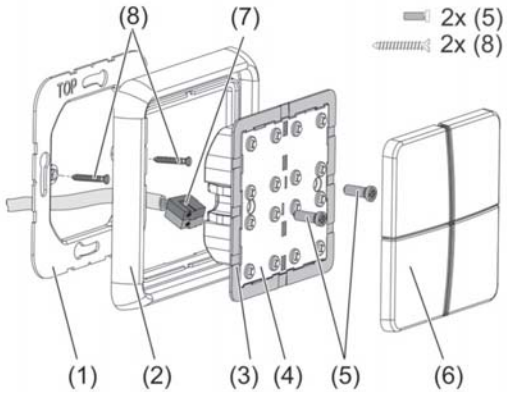


Fig. 2: Installation

(1) Supporting ring
(2) Frame

(3) Adapter frame
(4) Push-button module (TSM)
(5) Locking screw
(6) Cover kit
(7) Connecting terminal
(8) Box screws

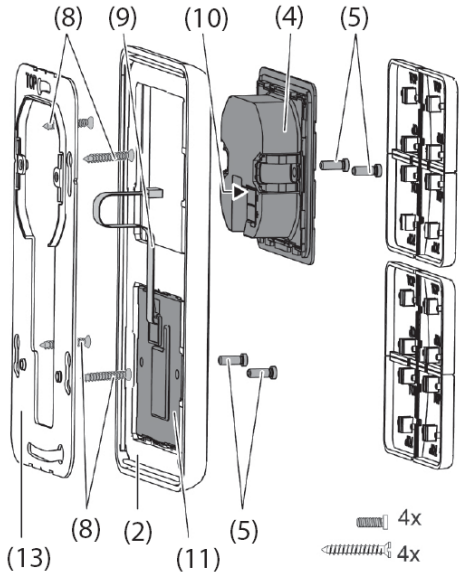


Fig. 3: Installation with extension module

(9) Connecting cable
(10) Plug-in position
(11) Push-button extension module (TSEM)
(13) Double supporting ring

Supporting ring A side for: A ranges, CD 500 and Flat Design.
Supporting ring B side for: LS ranges.
When using the push-button extension module (Figure 3): Preferred installation vertical. Use double supporting ring (13). For installation on only one flush-mounted box the lower screws should be countersunk into the wall, e.g. with a ø 6 x 10 mm hole. Use supporting ring as a template.

DANGER!
When installing with 230 V devices under a common cover, e.g. socket outlets, there is a danger of electric shock in the event of an error!
An electric shock can be fatal.
Do not install any 230 V devices in combination with a push-button extension module under a common cover!

- Install supporting ring (1) or (13) in the right orientation on an appliance box. Observe the label "TOP"; label A or B forwards. Use only the supplied box screws (8).
- Plug frame (2) onto the supporting ring.
- Preferred installation position of push-button extension module (11) is below. Guide connecting cable (9) between supporting ring and frame bar.

- Push-button extension module: insert connecting cable (9) in the right orientation in the plug-in position (10) in the module.
  Do not pinch the connecting cable.
- Connect push-button module (4) with connecting terminal (7) to the relay station and insert onto the supporting ring.
- Fasten the push-button module(s) to the supporting ring using the enclosed plastic screws (5).
  Only tighten the plastic screws lightly.

5. Commissioning

The push-button module is ready for operation after it is connected to the universal relay station (initial commissioning).

Push-button module Universal relay station

Button 1 top	Output 1
Button 1 bottom	Output 2
Button 2 top	Output 3
Button 2 bottom	Output 4
Button 3 top	Output 5
Button 3 bottom	Output 6

etc...

Push-button module Universal dimming station

Button 1 top	Output 1 dimming up
Button 1 bottom	Output 2 dimming down
Button 2 top	Output 3 dimming up
Button 2 bottom	Output 4 dimming down
Button 3 top	Output 5 dimming up

etc...

ⓘ When a push-button module is operated with a push-button extension on a single relay station, the push-button extension module does not have any function in the state as delivered.

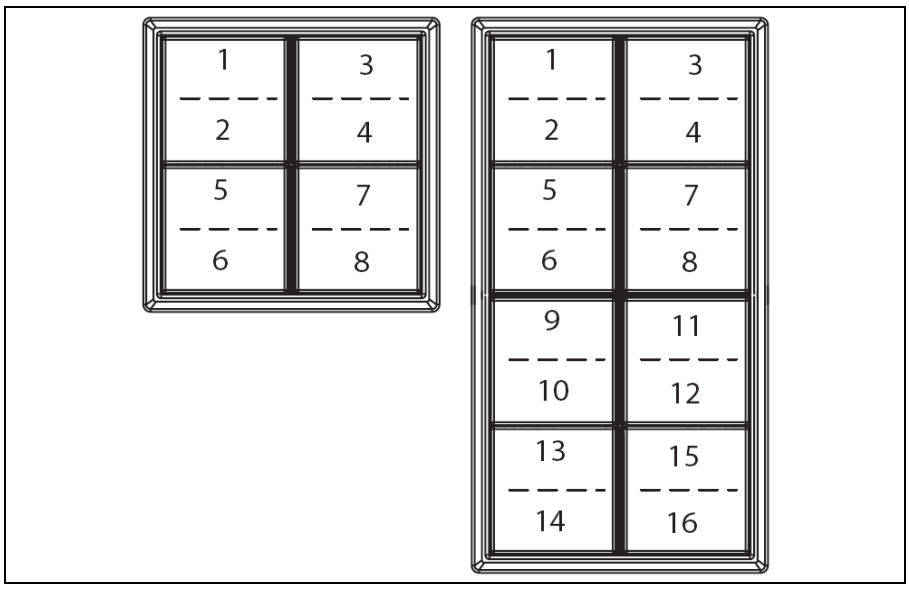


Fig. 4: Button assignment in state as delivered without and with push-button extension module.

6. Grouping

The push-button module can be operated with 1-gang, 2-gang, 3-gang and 4-gang cover kits. The push-button module and the push-button extension module have to be grouped depending on the cover and the channels being switched.
Assignment is performed without the cover.

Configuring the buttons

Each button can be configured for its entire surface or divided top/bottom. This is done by assigning the buttons as follows.

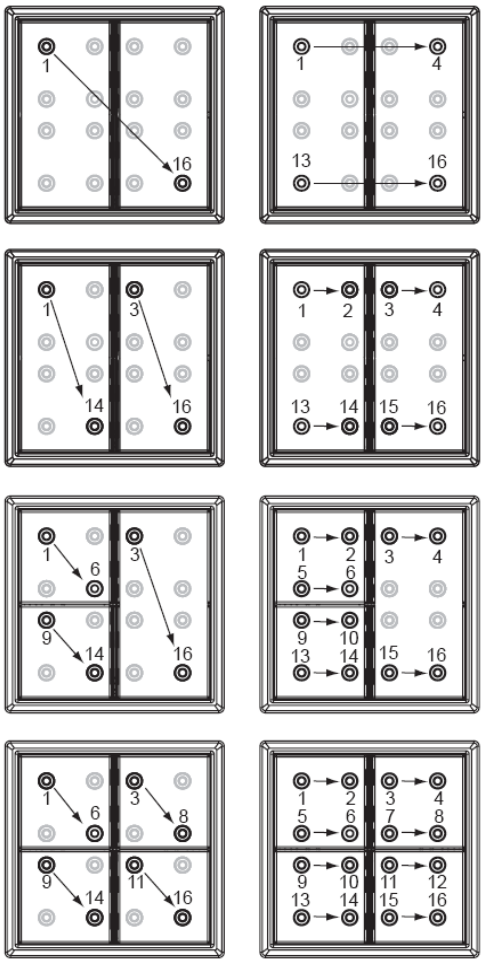


Fig. 5: Button configuration for entire surface or top/ bottom operation, for 1-gang, 2-gang, 3-gang and 4-gang covers.

Example configurations (Figure 5).

ⓘ Entire-surface and top/bottom operation can be combined on a single device.

1-gang button

Configure for entire surface:
Press micro button 1 and then 16.
Configure top/bottom:
Upper half: press micro button 1 and then 4
Lower half: press micro button 13 and then 16

2-gang button

Configure left-hand button for entire surface:
Press micro button 1 and then 14.
Configure right-hand button for entire surface:
Press micro button 3 and then 16.
Configure top/bottom:
Left-hand button
Upper half: press micro button 1 and then 2
Lower half: press micro button 13 and then 14
etc.

Activating the grouping mode

The grouping mode is activated on the push-button module.
No switching commands are executed in the grouping mode.

Cover is not installed.

- Press micro buttons 6 – 3 – 5 – 5 in sequence.
  All LEDs flash 2 x
- Press micro buttons 6 – 3 – 5 – 5 in sequence once again.
  All LEDs flash 2 x
  LEDs 1 to 8 (16) flash,
  the grouping mode is active.
  - ⓘ Normal operation after 2 minutes without any button being pressed.

Assignment of the buttons to the outputs of the relay station

Grouping mode is active.
LEDs of free channels flash.
LEDs of assigned channels light up continuously

- ⓘ A unit comprising a TSM and a TSEM is commissioned via the TSM.
- ⓘ Assigned buttons are overwritten if they are assigned again.

- Select channels 1-8 (16) of the relay station using micro buttons 1-8 (16).
  The LED of the selected channel lights up.
  All other LEDs are OFF.
- Press 2 micro buttons of the assigned button (Figure 5).
  LEDs of free channels flash.
  LEDs of assigned channels are ON
  - ⓘ Repeat the assignment until all desired channels have been assigned.
  - ⓘ Continue with central function or end assignment.
- Make a long press on micro button 16 (approx. 3 seconds).
  Assignment ended.
  Normal operation

Central function

Grouping mode is active.
At least one button is not assigned.

ⓘ Assigned buttons are overwritten if they are assigned.

ⓘ It is also possible to configure only central ON or central OFF.

ⓘ Central ON and central OFF can be configured in any desired sequence.

- Make a long press on micro button 15 (approx. 3 seconds)
  LEDs 1 and 2 flash
- Press button 1 for central On
  LED 1 lights up
- Press 2 micro buttons of the assigned button
  LED 1 lights up
  LED 2 flashes
- Press button 2 for central Off
  LED 2 lights up
- Press 2 micro buttons of the assigned button
  LEDs 1 and 2 light up
- Make a long press on micro button 16 (approx. 3 seconds)
  Assignment ended
  Normal operation

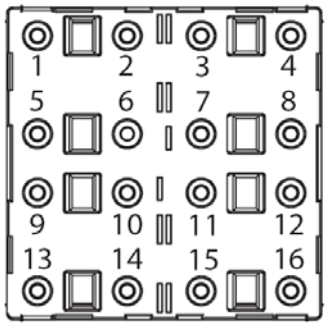


Fig. 6: Micro buttons 1-16

7. Changing an existing assignment

- Activate grouping mode
  LEDs of free channels are flashing.
  LEDs of assigned channels are ON

ⓘ When changing the central function make a long press on button 15.

- Select new channels 1-8 (16) of the relay station using micro buttons 1-8 (16).
  The LED of the selected channel lights up
- Press 2 micro buttons of the button being changed (Figure 5)
- Make a long press on micro button 16 (approx. 3 seconds)
  Assignment ended.
  Normal operation

8. Status LED

switching on or off

The push-button module is in normal operation
Cover kit is configured.

- Make a long press on button at top or button in a line with the LED for approx 10 seconds
  Red status LED next to the button is switched on or off.

9. Operation LED

switching on or off

The push-button module is in normal operation (i.e. not in programming mode).
The cover kit is not assembled.

- Press push-button module at the 4 corners for approx. 10 seconds (4 micro buttons at the corners, 1-4-13-16, are pressed simultaneously).
  Blue operation LED is switched on or off.

  ⓘ The push-button extension module does not have any operation LED.

10. Reset

Reset push-button module to the state as delivered.
All settings are overwritten. The push-button module is in normal operation.

- Press micro buttons 12 – 9 – 7 – 9 in sequence.
  All LEDs flash 2 x
- Press micro buttons 12 – 9 – 7 – 9 in sequence once again.
  All LEDs flash 2 x.
  The state as delivered has been restored.
  Push-button module is ready for operation.

11. Installing cover kit

- The buttons are available as a complete cover kit. Individual buttons or the complete cover kit can be replaced using buttons with symbols.

  ⓘ The assembling web is not necessary to install the buttons.
- Place buttons on the device in the right orientation and push briefl y to snap in. Observe the label "TOP".

  ⓘ Laser-print buttons at www.jung-label.de

12. Cloning push-button modules

"Cloning" means transmitting the button assignment of a push-button module to other push-button modules.
No operation of the relay station is possible during an ongoing cloning operation. Only pushbutton modules can be cloned from each other.
Several push-button modules are connected to the relay station.

- Press MODE and Central Switching Mode buttons simultaneously until the LEDs ✎, ON/▲ and OFF/▼ flash.
  The relay station and push-button modules are in cloning mode.
- The red LEDs on the push-button modules are flashing.
- Press a button on the push-button module being cloned within approx. 2 minutes.
  The red LEDs on the push-button module are flashing rapidly.
  The red LEDs of the other the push-button modules continue to flash.
- Press a button on another push-button module within approx. 2 minutes.
  All of the red LEDs on both push-button modules flash rapidly.
  The button assignment has been applied to the push-button module, and cloning mode is terminated.
- For further push-button modules, repeat the steps described above.

ⓘ Cloning mode cannot be stopped manually. In order to abort a cloning mode process, do not actuate any push-button module for 2 minutes.

ⓘ If cloning mode was activated at the relay station without any connected push-button modules, cloning mode is terminated automatically after 2 minutes.

13. Appendix

13.1. Technical data

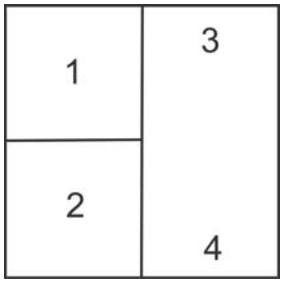
Power supply via	
universal relay/dimming station	DC 24 V
Min. current TSM	approx. 3 mA
Max. current TSM	approx. 12 mA
Min. current TSM + TSEM	approx. 3 mA
Max. current TSM + TSEM	approx. 19 mA
Protection level	IP 20
Safety class	III
Ambient temperature	+5 ... +45 °C
Storage temperature	-25 ... +70 °C
Connection type	connection terminal
Cable length	max. 100 m
Cable type	J-Y(St)4 2x2x0.8

13.2.Accessories

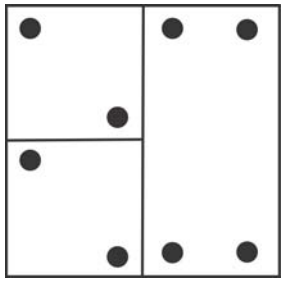
Relay station	Ref.-No.: RS 8 REGHE
Dimming station	Ref.-no.: UDS 4 REGHE
Push-button extension module	Ref.-no.: 4094 TSEM
Cover kit 1-gang, complete	Ref. no.: ..401 TSA..
Cover kit 2-gang, complete	Ref. no.: ..402 TSA..
Cover kit 3-gang, complete	Ref. no.: ..403 TSA..
Cover kit 4-gang, complete	Ref. no.: ..404 TSA..
Button 1-gang w. symbols	Ref. no.: ..401 TSAP..
Button 2-gang w. symbols	Ref. no.: ..402 TSAP..
Button 4-gang w. symbols f. button 1 or 4	Ref. no.: ..404 TSAP..14
f. button 2 or 3	Ref. no.: ..404 TSAP..23

13.3.Planning aids

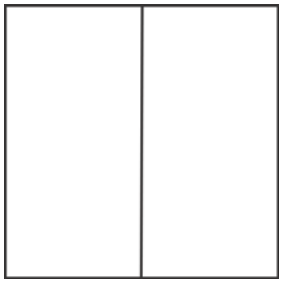
Channel relay station

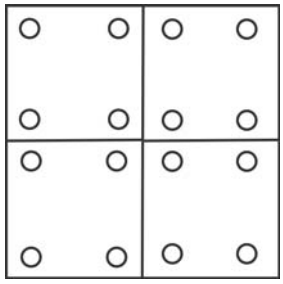


Button programming



Example





14. Guarantee

Our products are under guarantee within the scope of the statutory provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

ALBRECHT JUNG GMBH & CO. KG
Service-Center
Kupferstr. 17-19
D-44532 Lünen
Service-Line: +(49) 23 55 . 80 65 51
Telefax: +(49) 23 55 . 80 61 65
E-Mail: mail.vka@jung.de

General equipment

Service-Line: +(49) 23 55 . 80 65 55
Telefax: +(49) 23 55 . 80 62 55
E-Mail: mail.vkm@jung.de

KNX equipment

Service-Line: +(49) 23 55 . 80 65 56
Telefax: +(49) 23 55 . 80 62 55
E-Mail: mail.vkm@jung.de

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